

ABSTRACT

A dielectric layer may be formed for semiconductor devices using sequential deposition processes. In one embodiment, such a layer may be formed by applying
5 plasma power to a plasma enhanced sequential chemical vapor deposition chamber, introducing a deposition gas after applying the plasma power, starting nitride deposition in the chamber to form a first portion of a layer on a substrate, and turning off the plasma power. Multiple portions of a layer may be formed by repeating these operations.

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